CLAIMS:

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virtual connection.

What is claimed:

1. A communication network comprising:

a processing system configured to process one of a Signaling System #7 (SS7) signaling message and a Q.931 signaling message for a call to select packet routing information for the call and to transfer a control message indicating packet routing information; and

a communication system configured to receive a user communication for the call and the control message, and in response, convert the user communication into a packet format including the packet routing information selected by the processing system and transfer the user communication in the packet format to a packet system that routes the user communication based on the packet routing information selected by the processing system.

2. The communication system of claim 1 wherein the packet routing information comprises an address.

3. The communication system of claim 1 wherein the packet routing information indicates a

4. The communication system of claim 1 wherein the packet routing information comprises a network code representing a network element to egress the call from the packet system.

5. The communication system of claim 1 wherein:

the processing system is configured to process another one of an SS7 signaling message and a Q.931 signaling message for the call to transfer another control message indicating call termination; and

the communication system is configured to receive the other control message and responsively terminate the call.

- 6. The communication system of claim 1 wherein the processing system is configured to access
- a Service Control Point (SCP) based on the signaling message to select the packet routing information.
 - 7. The communication system of claim 1 wherein the processing system is configured to generate and transfer billing information for the call.

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- 8. The communication system of claim 1 wherein the communication system is configured to receive the user communication for the call in a Time Division Multiplex (TDM) format.
- 9. The communication system of claim 1 wherein the communication system is configured to receive the user communication for the call in a DS0 format.
 - 10. The communication system of claim 1 wherein the processing system is external to the communication system.

11. A method of operating a communication network, the method comprising:

in a processing system, processing one of a Signaling System #7 (SS7) signaling message and a Q.931 signaling message for a call to select packet routing information for the call and transferring a control message indicating packet routing information; and

in a communication system, receiving a user communication for the call and the control message, and in response, converting the user communication into a packet format including the packet routing information selected by the processing system and transferring the user communication in the packet format to a packet system that routes the user communication based on the packet routing information selected by the processing system.

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- 12. The method of claim 11 wherein the packet routing information comprises an address.
- 13. The method of claim 11wherein the packet routing information indicates a virtual connection.

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- 14. The method of claim 11 wherein the packet routing information comprises a network code representing a network element to egress the call from the packet system.
- 15. The method of claim 11 further comprising:

20 in the processing system, processing another one of an SS7 signaling message and a Q.931 signaling message for the call and responsively transferring another control message indicating call termination; and

in the communication system, receiving the other control message and responsively terminating the call.

- 16. The method of claim 11 further comprising, in the processing system, accessing a Service Control Point (SCP) based on the signaling message to select the packet routing information.
 - 17. The method of claim 11 further comprising, in the processing system, generating and transferring billing information for the call.
- 10 18. The method of claim 11 wherein receiving the user communication for the call comprises receiving the user communication in a Time Division Multiplex (TDM) format.
 - 19. The method of claim 11 wherein receiving the user communication for the call comprises receiving the user communication in a DS0 format.

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20. The method of claim 11 wherein the processing system is external to the communication system.